

THE ECONOMIC IMPORTANCE OF THE BRISTOL BAY SALMON INDUSTRY

Briefing for EPA Staff

March 19, 2013



Gunnar Knapp

Professor of Economics

University of Alaska Anchorage

- I have been studying the Alaska salmon industry for 25 years.
- I prepared part of the economic analysis for the EPA Bristol Bay study
- Together with colleagues at the University of Alaska Institute of Social and Economic Research (ISER), I recently completed a report for the Bristol Bay Regional Seafood Development Association on the economic importance of the Bristol Bay salmon industry
- This presentation:
 - Compares the economic analyses in the two studies
 - Summarizes the analysis in the new ISER study

**The Economic Importance of the
Bristol Bay Salmon Industry**

prepared for the

Bristol Bay Regional Seafood Development Association

by:

Mouheme Guettabi
Gunnar Knapp
Scott Goldsmith

Institute of Social and Economic Research
University of Alaska Anchorage / 3211 Providence Drive / Anchorage, AK 99508
907.798.7710 / www.iser.uaa.alaska.edu/

March 2013

To understand what we did in our new report, it's helpful to compare and contrast it with the economic analysis in the EPA study.

An Assessment of Potential Mining Impacts on Salmon Ecosystems of Bristol Bay, Alaska

Volume 3 – Appendices E-I



Differences in the types of economic analysis done in the EPA Study and the ISER study of Economic Importance of the Bristol Bay Salmon Industry

Introduction for my section of the analysis for the EPA study

	EPA study	ISER study
What the studies looked at:	Commercial fishery Subsistence fisheries Sport fisheries Other ecosystem values	Commercial fishery
Economic measures of the commercial fishery	Economic impacts Net economic value	Economic impacts
Economic impacts estimated	Direct impacts in Bristol Bay Multiplier impacts in Alaska	Direct impacts in Bristol Bay Direct “downstream” impacts Multiplier impacts nationally and in Alaska, Washington, Oregon, California
Year for which impacts were estimated	2009	2010

My analysis for the EPA study was limited to an economic description of the Bristol Bay commercial fishery in Alaska.

I did not study downstream impacts, multiplier impacts, or net economic value.

I was not involved in other parts of the economic analysis or the design of the overall analysis.

Knapp
sections of
EPA study
analysis

Contents

Contents.....	2
List of Tables.....	4
List of Figures.....	7
Executive Summary.....	9
Subsistence and Village Economies.....	11
Commercial Fisheries.....	14
Recreation.....	17
Summary of Economic Significance.....	17
Net Economic Values.....	22
1.0 Introduction and Setting.....	28
1.1 Study Objectives and Report Organization.....	28
1.2 Definition of Study Area.....	29
1.3 Focus of Study-Economic Uses.....	32
2.0 Bristol Bay Recreation and Subsistence Economies.....	35
2.1 Bristol Bay Sportfishing Economics.....	35
2.1.1 Bristol Bay Area Trip Characteristics and Angler Attitudes.....	35
2.1.2 Bristol Bay Angler Expenditures.....	38
2.1.3 Aggregate Direct Sport Fishing Expenditures in Bristol Bay.....	40
2.2 Bristol Bay Subsistence Harvest Economics.....	42
2.3 Bristol Bay Sport Hunting and Non-consumptive Economics.....	47
2.3.1 Sport Hunting.....	47
2.3.2 Non-consumptive Wildlife Viewing / Tourism Economics.....	48
3.0 Bristol Bay Commercial Fisheries.....	51
3.1 Introduction.....	51
3.2 Overview of the Bristol Bay Salmon Industry.....	52
3.3 Bristol Bay Salmon Harvests.....	57
3.4 Bristol Bay Salmon Products and Markets.....	71
3.5 Bristol Bay Salmon Prices.....	80
3.6 Bristol Bay Salmon Ex-Vessel and Wholesale Value.....	92
3.7 Bristol Bay Salmon Fishermen.....	96
3.8 Bristol Bay Salmon Processors.....	105
3.9 Bristol Bay Salmon Industry Employment.....	109
3.10 Bristol Bay Salmon Industry Taxes.....	117
3.11 Regional Distribution of Bristol Bay Permit Holders, Fishery Earnings, and Processing Employment.....	119
3.12 Distribution of Salmon Permits and Earnings within The Bristol Bay Region.....	129
3.13 Economic Measures of the Bristol Bay Salmon Industry.....	137
3.14 Bristol Bay Commercial Fisheries: Summary.....	144
3.15 Appendix: Data Sources.....	153
4.0 Economic Significance of Healthy Salmon Ecosystems in the Bristol Bay Region: Summary Findings.....	171
4.1 Introduction.....	173
4.2 Methods.....	174

Introduction for my section of the analysis for the EPA study

3.0 Bristol Bay Commercial Fisheries

3.1 Introduction

This section provides an economic overview of Alaska's Bristol Bay commercial salmon industry. The report begins with a brief overview of the industry. Subsequent sections discuss harvests, products and markets, prices, harvest and wholesale value, fishermen, processors, employment, taxes, the regional distribution of permit holders, fishery earnings and processing employment, and the role of the industry in the Bristol Bay regional economy. The final section discusses selected economic measures of the Bristol Bay salmon industry.


Table 48. Selected Economic Measures of the Bristol Bay Salmon Industry, 2000-2010.

Selected Economic Measures of the Bristol Bay Salmon Industry, 2000-2010													
Measure	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Ave.	Range
Sockeye Salmon Harvests													
Millions of fish	21	14	11	15	26	25	28	30	28	31	29	23	11 - 31
Millions of pounds	125	96	65	93	152	155	165	173	160	183	170	140	65 - 183
Bristol Bay harvest volume as a share of:													
Alaska sockeye salmon	61%	56%	48%	50%	59%	58%	69%	62%	71%	71%	74%	62%	48% - 74%
World sockeye salmon	45%	40%	28%	38%	47%	47%	49%	47%	52%	55%		45%	28% - 55%
Alaska wild salmon (all species)	18%	12%	10%	13%	19%	16%	22%	18%	23%	25%		18%	10% - 25%
World wild salmon (all species)	7%	5%	4%	5%	8%	7%	8%	7%	9%	7%		7%	4% - 9%
World wild & farmed salmon (all species)	3%	2%	1%	2%	3%	3%	3%	3%	3%	3%		2%	1% - 3%
Gross Value (\$ millions)													
Ex-vessel value	80	40	32	48	76	95	109	116	117	144	181	94	32 - 181
Furst wholesale value	175	115	100	114	176	220	237	249	262	293	390	212	100 - 390
Total value of US exports of Bristol Bay salmon products	150	137	97	111	172	193	173	183	206	230	254	173	97 - 254
Workers													
Peak (July) fishing employment		7,098	5,514	6,465	6,513	6,750	6,936	6,891	6,969	6,768		6,656	5,514 - 7,098
Number of fish processing workers		2,862	2,273	2,484	3,474	3,272	2,940	3,512	3,952	4,522		3,255	2,273 - 4,522
Total		9,960	7,787	8,949	9,987	10,022	9,876	10,403	10,921	11,290		9,911	7,787 - 11,290
Estimated annual average employment													
Fishing		1,179	888	1,063	1,089	1,098	1,140	1,110	1,129	1,143		1,093	888 - 1,179
Fish processing		475	366	409	581	532	483	566	640	764		535	366 - 764
Total		1,654	1,254	1,472	1,669	1,631	1,623	1,675	1,769	1,907		1,628	1,254 - 1,907
Average permit price (\$ 000)													
Drift gillnet fishery	81	35	20	29	37	51	75	79	90	78	102	62	20 - 102
Set gillnet fishery	32	25	12	13	15	15	22	24	27	28	29	22	12 - 32
Estimated total permit value (\$ millions)													
Drift gillnet fishery	149.6	64.6	36.7	54.5	68.7	95.2	139.4	147.8	167.3	145.9	190.2	114.5	36.7 - 190.2
Set gillnet fishery	32.6	25.5	11.9	12.6	14.5	14.9	22.1	23.6	26.8	27.7	28.2	21.9	11.9 - 32.6
Total	182.2	90.1	48.6	67.1	83.2	110.1	161.5	171.4	194.1	173.6	218.4	136.4	48.6 - 218.4

Summary of economic measures I calculated for my analysis for the EPA study

My ISER colleague Tobias
Schwoerer prepared
economic significance
estimates for the EPA study
using an Alaska input-output
model. His analysis looked
only at economic impacts in
Alaska.

Schwoerer
sections of
EPA study
analysis



4.0 Economic Significance of Healthy Salmon Ecosystems in the Bristol Bay Region: Summary Findings.....	171
4.1 Introduction.....	173
4.2 Methods.....	174
4.3 Regional Economic Overview.....	178
4.4 Commercial Salmon Fisheries.....	182
4.5 Recreation.....	184
4.5.1 Non-Consumptive Use.....	187
4.5.2 Sport Fishing.....	188
4.5.3 Sport Hunting.....	189
4.6 Subsistence.....	190
4.7 Conclusions.....	191
4.8 Key Assumptions and Uncertainties.....	193
4.9 Data Sources.....	196
5.0 Bristol Bay Net Economic Values.....	199
5.1 Commercial Fisheries.....	199
5.2 Subsistence Harvest.....	201
5.3 Sport Fishing Net Economic Value.....	205
5.4 Sport Hunting Net Economic Value.....	207
5.5 Wildlife Viewing and Tourism Net Economic Value.....	208
5.6 Total Net Economic Value and Present Value and Inter-temporal Issues.....	208
References.....	214

“... The analysis shows the contributions to the regional economy of Bristol Bay and the rest of Alaska but excludes the contributions occurring in other states of the U.S. . . .” (page 173)

Multiplier impacts were
estimated only for
Alaska

Table 64. Estimated Economic Significance of Bristol Bay Ecosystems

	Total	Residents		Non-Residents
		Non-local	Local	Total
Direct jobs				
Peak	14,227	4,365	2,273	6,639
Commercial fish	11,572	3,251	1,089	4,341
Recreation	2,655	1,114	1,184	2,298
Subsistence	non-mkt.	non-mkt.	non-mkt.	non-mkt.
Annual average	2,811	914	585	1,499
Commercial fish	1,897	530	177	707
Recreation	914	384	408	792
Subsistence	non-mkt.	non-mkt.	non-mkt.	non-mkt.
Multiplier Jobs	3,455	2,008	1,447	3,455
Total jobs (annual average)	6,266	2,922	2,032	4,954
1,313				
Direct wages (\$000)	\$166,632	\$40,149	\$31,048	\$66,199
Commercial fish	\$134,539	\$22,698	\$17,608	\$40,307
Recreation	\$32,093	\$12,451	\$13,440	\$25,892
Subsistence	non-mkt.	non-mkt.	non-mkt.	non-mkt.
Multiplier wages	\$115,976	\$69,250	\$46,724	\$115,976
Total wages	\$282,608	\$104,399	\$77,772	\$182,175
\$100,435				

-

-

Summary of Schwoerer economic impact estimates

Note, estimates based on ISER Input-Output Model (Goldsmith, 2000). All direct jobs are in the Bristol Bay region.

Schwoerer economic impact estimates for the commercial fishery

*These are the only economic
impact estimates which are
directly comparable between the
EPA study and the ISER study*

Table 57. Estimated Economic Significance of Commercial Fishing

	Total	Non-local	Residents Local	Total	Non- Residents
Direct jobs					
Peak	11,572	3,251	1,089	4,341	7,231
Harvesting	7,050	2,694	1,013	3,708	3,342
Processing	4,522	557	76	633	3,889
Annual average	1,897	530	177	707	1,190
Harvesting	1,143	437	164	601	542
Processing	754	93	13	106	648
Multiplier Jobs	1,586	832	754	1,586	-
Total jobs (annual average)	3,483	1,362	931	2,293	1,190
Direct wages (\$000)	\$134,539	\$22,698	\$17,608	\$40,307	\$94,233
Harvesting	\$103,354	\$19,645	\$16,609	\$36,255	\$67,100
Processing	\$31,185	\$3,053	\$999	\$4,052	\$27,133
Multiplier wages	\$54,705	\$28,101	\$26,604	\$54,705	-
Total wages	\$189,244	\$50,799	\$44,212	\$95,012	\$94,233

Note, estimates based on ISER Input-Output Model (Goldsmith, 2000).

The economic impacts analyzed by the EPA study represented only about one-fourth of the total economic impacts of the Bristol Bay fishery in the United States.

The impacts estimated for Alaska (for different years) were comparable between the two studies.

Comparison of Bristol Bay Salmon Industry Annual Average Employment Impact Estimates in ISER & EPA Studies

Impact Driver	Type of impact	ISER study estimates for 2010			Schworer estimates in EPA study for 2009		
		Total US	AK	United States	Total US	AK	United States
Fishing and primary processing in Bristol Bay	Direct impacts	1,987	728	1,259	1,897	707	1,190
	M multiplier impacts	5,852	1,338	4,514	Not estimated	1,586	Not estimated
	Total impacts	7,839	2,066	5,772		2,293	
Shipping to other states and secondary processing	Direct impacts		Not estimated				
	M multiplier impacts	191					
	Total impacts	563					
Total impacts		754					
Total impacts		8,592					
Nationwide distribution and retailing	Direct activity		Not estimated				
	M multiplier activity	787					
	Total activity	425					
Total impacts & activity		1,212					
Total impacts & activity		9,804					

Overview of findings of the new ISER study . . .

The Economic Importance of the Bristol Bay Salmon Industry



prepared for the

Bristol Bay Regional Seafood Development Association

by

Mouching Guattabi
Gunner Knapp
Scott Goldsmith



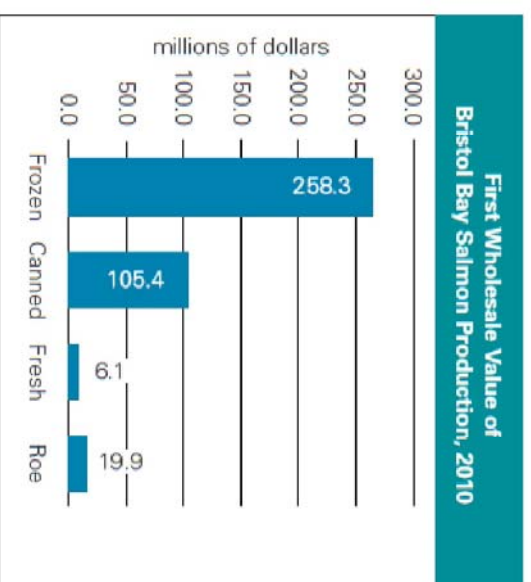
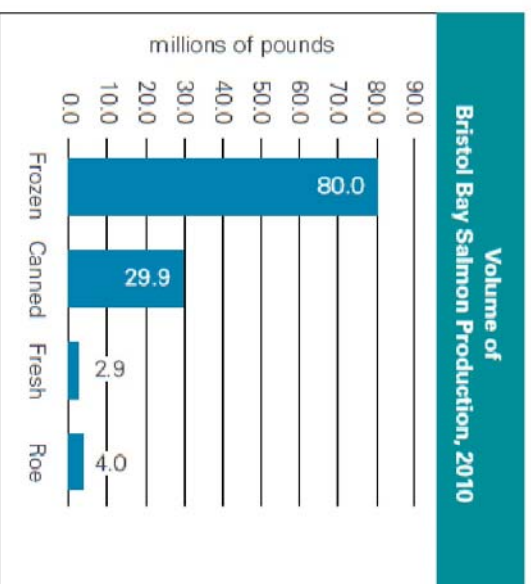
Institute of Social and Economic Research
University of Alaska Anchorage / 3211 Providence Drive / Anchorage, AK 99508
907-786-7710 / www.iser.uaa.alaska.edu/

March 2013

Economic importance of the Bristol Bay salmon industry in 2010

- Harvested 29 million sockeye salmon
- Harvest value of \$165 million
 - 35% of total Alaska salmon harvest value
 - More than total value of fish harvests in 41 states
- First wholesale value after processing of \$390 million
- Supported 12,000 summer fishing and processing jobs in Bristol Bay
- Including “downstream” handling beyond Bristol Bay and “multiplier” effects in other industries, created:
 - The equivalent of almost 10,000 year-round American jobs
 - \$500 million in income for Americans
 - **\$1.5 billion in output value across the United States**

In Bristol Bay, salmon are processed into four major *primary products*: frozen salmon, canned salmon, fresh salmon, and roe. Most primary production is frozen or canned.



Frozen headed & gutted (H&G) salmon



Canned salmon



Bristol Bay salmon products distribution chains

Fishing



Primary processing in Bristol Bay



Frozen salmon

Exports



Marine shipping to WA



Secondary processing In WA



Domestic distribution & retail sales

Canned salmon



Marine shipping to WA & OR



Warehousing and labeling in WA & OR



Domestic distribution & retail sales

Fresh salmon



Air shipping to other states



Domestic distribution & retail sales

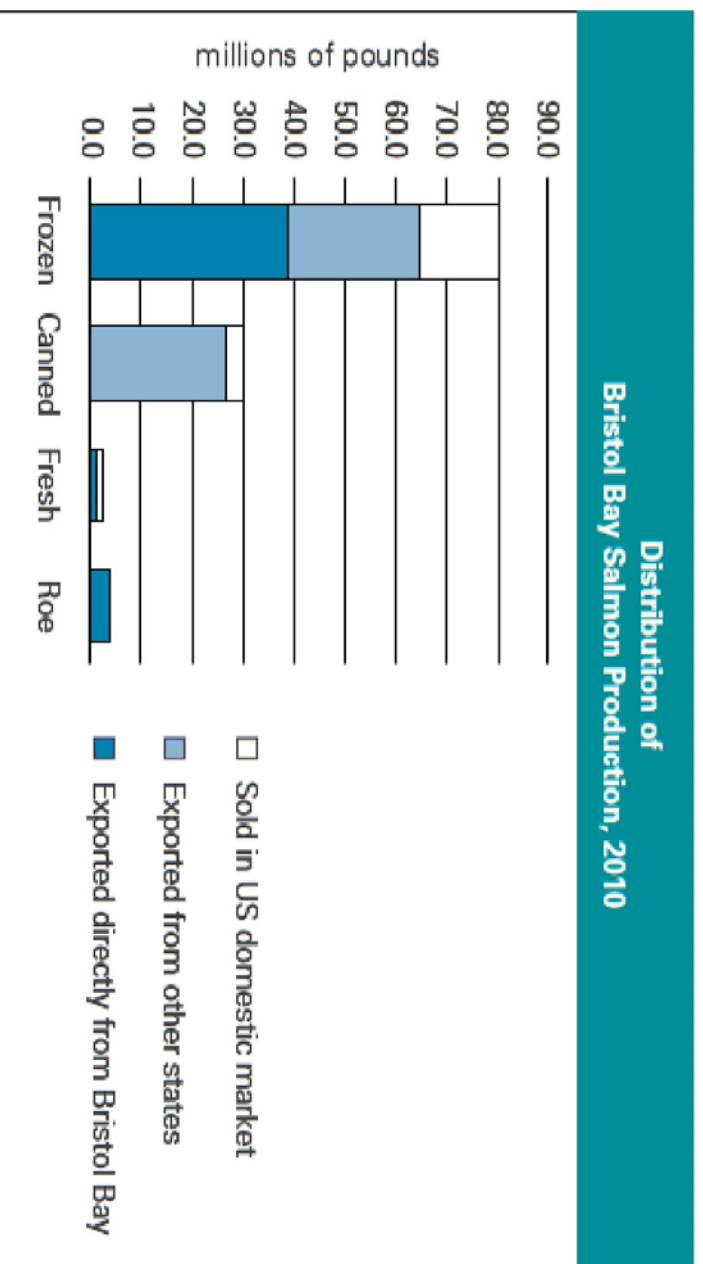
Salmon roe



Exports

A large share of Bristol Bay salmon is exported

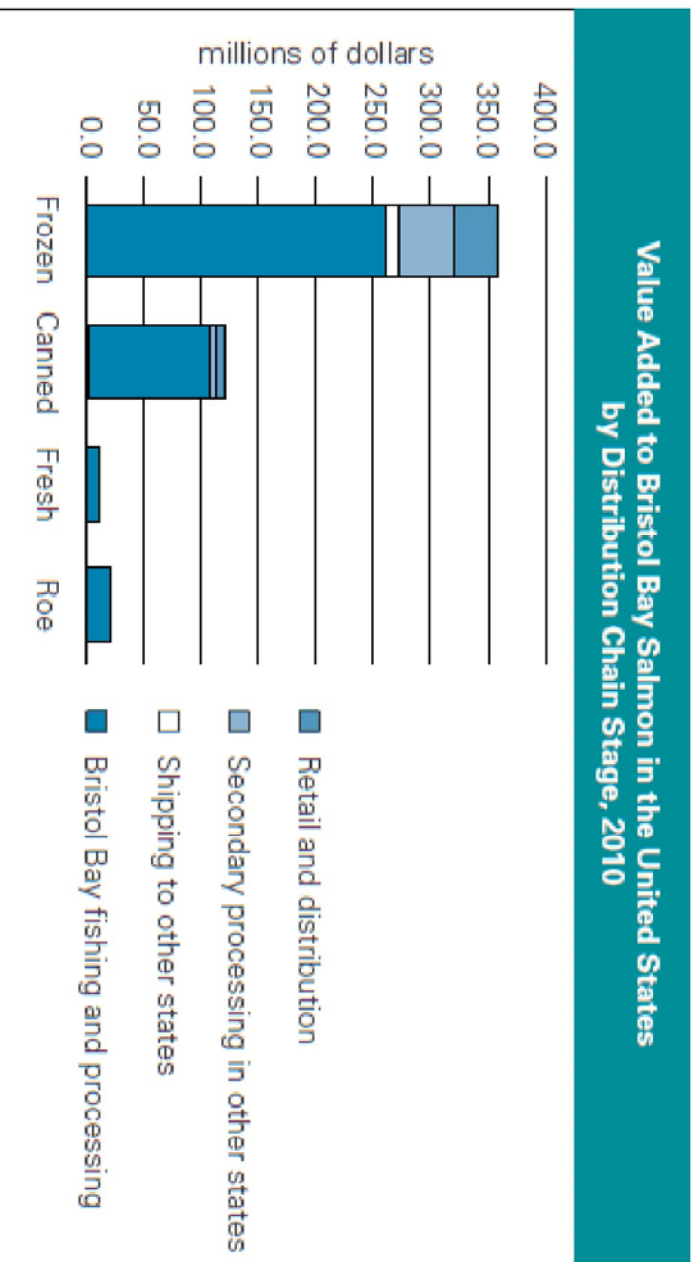
- In 2010, Bristol Bay salmon product exports were about \$370 million—about **one-tenth of the total value of all US seafood exports**.
- Most frozen salmon exports are to Japan, China and the EU
- Most canned salmon exports are to the UK and Canada
- About half of frozen salmon is exported directly from Bristol Bay
- Some frozen salmon and almost all canned salmon is shipped to other states prior to export.



Value is added to Bristol Bay salmon at each stage of the US distribution chains.

Because a large share is exported, most of the value added in the United States is in Bristol Bay fishing and processing.

About one-fifth of the value is added in later stages of the distribution chain.



US industries based on Bristol Bay salmon

- Industries in Bristol Bay:
 - Bristol Bay fishing industry
 - Bristol Bay processing industry
- Downstream industries outside Bristol Bay which add value to Bristol Bay salmon:
 - Marine transportation
 - Air transportation
 - Frozen salmon secondary processing in other states
 - Canned salmon warehousing and labeling in other states
 - Nationwide distribution and retailing

Economic impacts of the Bristol Bay salmon industry:
jobs, income, and output value that would not exist
without Bristol Bay salmon

- Direct economic impacts: Jobs, income and output value in businesses directly involved in harvesting, processing, transporting and retailing Bristol Bay salmon
- Multiplier economic impacts: Jobs, income and output value created in other industries:
 - As fishermen, processors and downstream industries purchase supplies and services
 - As employees and business owners spend their income

Types of economic impacts we estimated for this report

Impact driver	Types of Impacts & Activity	United States	Alaska	Washington	Oregon	California	Other states
Fishing and processing in Bristol Bay	Direct impacts	X	X	X	X	X	X
	Multiplier impacts	X	X	X	X	X	X
	Total impacts	X	X	X	X	X	X
Shipping to and secondary processing in Washington & Oregon	Direct impacts	X		X	X		
	Multiplier impacts	X		X	X		
	Total impacts	X		X	X		
Nationwide distribution and retailing	Direct activity	X					
	Multiplier impacts	X					
	Total activity	X					
Total	Direct activity	X					
	Multiplier impacts	X					
	Total activity	X					

To estimate economic impacts we used IMPLAN input-output modeling software

- IMPLAN is commonly used for estimating economic impacts of many different industries
- The software traces the ripple effects of payments between industries
 - At the national level
 - Within individual states

Overview of nationwide economic impacts of the Bristol Bay salmon industry in 2010

Economic Impacts of the Bristol Bay Salmon Industry in 2010

Annual average employment: 9,800 jobs	Output value: \$1.5 billion	Income: \$500 million
Fishing & processing in Bristol Bay		
12,000 seasonal jobs (=2,000 annual jobs)	\$390 million	\$140 million
Shipping, secondary processing & retailing after Bristol Bay		
1,000 jobs	\$110 million	\$40 million
Multiplier impacts in other industries		
6,800 jobs	\$970 million	\$320 million

Summary of estimated employment impacts

Employment Impacts of the Bristol Bay Salmon Industry, 2010 (annual average employment)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts*	1,987	728	538	357	92	272
	Multiplier impacts	5,852	1,338	2,237	163	249	1,865
	Total impacts	7,839	2,066	2,775	520	341	2,137
Shipping to other states and secondary processing	Direct impacts	191		156	15		
	Multiplier impacts	563		229	24		
	Total impacts	754		385	39		
Total impacts		8,592		3,160	559		
Nationwide distribution and retailing**	Direct activity	787	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. *Direct employment impacts of fishing and processing in Bristol Bay were calculated by dividing seasonal employment by 6. ** Based on conservative assumption that distribution and retailing adds 50% to value. Data on actual markup not available.				
	Multiplier activity	425					
	Total activity	1,212					
Total impacts & activity		9,804					

Summary of estimated income impacts

Income Impacts of the Bristol Bay Salmon Industry, 2010 (millions of dollars)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts	144	50	48	8	19	18
	Multiplier impacts	268	62	98	7	12	90
	Total impacts	412	112	146	15	31	108
Shipping to other states and secondary processing	Direct impacts	13		11	1		
	Multiplier impacts	30		12	1		
	Total impacts	43		23	2		
Total impacts		455		169	17		
Nationwide distribution and retailing*	Direct activity	23	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. * Based on conservative assumption that distribution and retailing adds 50% to value. Data on actual markup not available.				
	Multiplier activity	20					
	Total activity	42					
Total impacts & activity		497					

Summary of estimated output value impacts

EPA-6363-000005230

Output Value Impacts of the Bristol Bay Salmon Industry, 2010 (millions of dollars)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts	390	127	198	13	19	30
	Multiplier impacts	801	161	288	19	37	297
	Total impacts	1,191	288	486	32	56	327
Shipping to other states and secondary processing in WA & OR	Direct impacts	68		56	4		
	Multiplier impacts	111		37	3		
	Total impacts	179		93	6		
Total impacts		1,370		580	38		
Nationwide distribution and retailing*	Direct activity	46	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. Output value allocated among states based on the residency of fishing and processing workers and business locations. * Based on conservative assumption that distribution and retailing adds 50% to value. Data on actual markup not available.				
	Multiplier activity	61					
	Total activity	106					
Total impacts & activity		1,476					

Overview of selected economic analysis for Washington . . .

- 656 Washington residents fished Bristol Bay permits in 2010
- They had gross earnings of \$59.5 million

Number of Permit Holders Who Fished, 2010

	Drift gillnet	Set gillnet	Total
Total	1510	816	2326
Washington	538	118	656
Washington %	36%	14%	28%



Gross Earnings, 2010 (millions of dollars)

	Drift gillnet	Set gillnet	Total
Total	134.1	31.0	165.2
Washington	55.3	4.2	59.5
Washington %	41%	13%	36%



Bristol Bay salmon fishing and processing created more than 3,000 *seasonal jobs* for Washington residents in 2010.

Seasonal Jobs in the Bristol Bay Salmon Industry in 2010						
	Total US	Alaska	Washington	Oregon	California	Other States
Fishing	7,035	3,734	1,948	362	345	646
Processing	4,886	635	1,279	1,781	208	983
Total	11,921	4,369	3,227	2,143	553	1,629

Almost all major Bristol Bay processing companies are based in Washington.

EPA-6363-000005233

Large Bristol Bay Salmon Processors and Buyers, 2010

Type of processor	Name of Company or Operator	Home Office Location	Products Produced in Bristol Bay				Shipping*	
			Canned	Frozen	Fresh	Cured	Air	Sea
Major processors with both canning and freezing capacity	Peter Pan Seafoods, Inc.	Seattle, WA	X	X	X	X	X	X
	Icicle Seafoods, Inc.	Seattle, WA	X	X	X		X	X
	Ocean Beauty Seafoods, Inc.	Seattle, WA	X	X	X		X	X
	Trident Seafoods	Seattle, WA	X	X	X		X	X
	Yard Arm Knot Fisheries, LLC	Seattle, WA	X	X				X
Other large processors	Alaska General Seafoods	Kenmore, WA	X	X	X		X	
	Leader Creek Fisheries, LLC	Seattle, WA		X				X
	Snopac Products, Inc.	Seattle, WA		X	X		X	X
	Pederson Point	Seattle, WA		X				X
	Togiak Fisheries	Seattle, WA		X				X
	Ekuk Fisheries	Seattle, WA		X	X		X	X

Source: Alaska Department of Fish and Game, Bristol Bay Annual Management Report 2010, Table 25

*How processors/buyers shipped products from Bristol Bay



Clothing

Cabin & Galley

Boat Parts

Rope & Cordage

Commercial

Engine Parts

Anchor & Dock

Safety

MY ACCOUNT | MY WISHLIST | MY CART (0) | CHECKOUT

GO Enter search keyword

GO



Redden Marine Supply has supplied custom commercial gillnets and seine fishing supplies to the Seattle, Washington and Alaska commercial fishing fleets for decades. We are particularly proud to offer top quality Japanese gill nets and seine netting for sale from [Osada](#) and [Nagaura](#). Redden Marine carries a large inventory of [Samsen](#), [leadline](#), [weedline](#), [Bao-Long](#), [cots](#), [quality twine](#), [net bags](#), [brailer hooks](#), [net needles](#), [pick hooks](#), and much more.

Most of the
supplies and
services used in
Bristol Bay fishing
and processing are
purchased in
Washington.



PRODUCTS

ABOUT US

SERVICES

NEWS

RESOURCES

CONTACT US

Home » Packaging

PACKAGING

Boxes

Poly

H&G and Meal Bags

Structured Film

Material Handling

Green Packaging

ROE PACKAGING

BINS, BARRELS, TRAYS

PARTITIONS

SALT PRODUCTS

PACKAGING

It's Called "Fishing" Not "Catching"

Looking for SEAFood PACKAGING in a hurry? When the catch is in unexpectedly, count on Frontier Packaging to have what you need to get your product out the door, fast. We are the largest distributor of packaging materials to the Northwest and Alaska seafood industry and can ship from our STOCK, CUSTOM or ROE program in a moment's notice. See our complete list of items, built from years of experience, to find what you're looking for!

Unless otherwise noted, all our products are always available for same day pick up or next day delivery within the greater Seattle area, or to local freight services.



Call Toll Free 8AM-5PM PST
1-800-767-7333



BOXES



POLY



H&G AND MEAL BAGS



STRUCTURED FILM

EPA 6363-00005234

About two-fifths of frozen Bristol Bay salmon is shipped to Washington for further packaging and/or processing.



[COMPANY](#)

[FOOD SERVICE](#)

[CONSUMER](#)

[JOIN OUR TEAM](#)

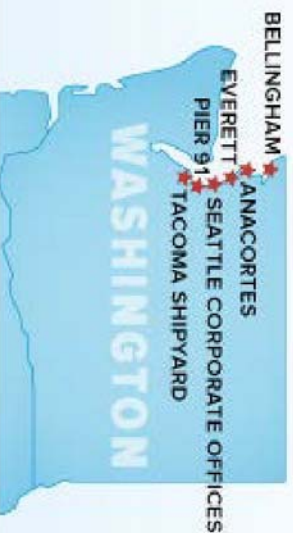
[CONTACT US](#)

[ONLINE STORE](#)

[» Home](#) [» Company](#) [» Northwest Plants](#)

Northwest Plants

- [» Anacortes](#)
- [» Bellingham](#)
- [» Motley, MN](#)
- [» Newport, OR](#)
- [» Pier 91 \(Seattle\)](#)
- [» Seattle Shipyard \(Old Yard\)](#)
- [» Tacoma Shipyard](#)



About half of Bristol Bay canned salmon is warehoused and labeled in Washington, prior to shipment to customers around the world.



**Warehouse Storage
Labelling Services**

**Contract Manufacturing
Club Store Packaging**

**Assembly & Kitting
Shrinkwrapping**

**Logistics
Distribution**

4610 Frontage Rd NW # 101 Auburn, WA 98004

OUR FACILITY

Warehouse and Distribution

Facility

209,000 square feet
54 Truck Doors
Easy access to I-5, I-90, I-405



 [Printer Friendly Page](#)

[Home](#)

[Warehouse & Distribution](#)

[Contract Packaging](#)

[Labelling Services](#)

[About Us](#)

[Resource Links](#)

[Contact Us](#)

STI is a full service warehouse and distribution facility. Our 209,000 sq ft warehouse includes storage, labeling and packaging machinery, and a busy shipping dock. Warehouse space is available for your QC projects, display setups or other type of fulfillment needs. See our other value added services under [Contract packaging](#). Various transportation modes are handled here daily. Inbound and outbound ocean containers are a normal activity, as well as full truckload and less than truckload quantities.

Most of the thousands of Bristol Bay fishing boats
were built in Washington.

KVICHAK MARINE INDUSTRIES

Main Facility, Seattle, WA

Kvichak's main facility is located along the Lake Washington Ship Canal in the heart of Seattle's maritime community, which provides a large pool of skilled workers and a superior local network of reliable and established vendors and sub-contractors.

- Two acres of property
- 300' of water access
- Primary construction bay: 15,500 sq.ft.
- Secondary production bay: 12,000 sq.ft.
- Fabric shell enclosure: 5,000 sq.ft.
- Removable end walls for vessel roll out and launch via barge cranes
- Climate controlled environment



Including downstream and multiplier impacts, the Bristol Bay salmon industry created *annual average employment* of more than three thousand jobs for Washington residents in 2010.

Employment Impacts of the Bristol Bay Salmon Industry, 2010 (annual average employment)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts*	1,987	728	538	357	92	272
	Multiplier impacts	5,852	1,338	2,237	163	249	1,865
	Total impacts	7,839	2,066	2,775	520	341	2,137
Shipping to other states and secondary processing	Direct impacts	191		156	15		
	Multiplier impacts	563		229	24		
	Total impacts	754		385	39		
Total impacts		8,592		3,160	559		
Nationwide distribution and retailing**	Direct activity	787	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. *Direct employment impacts of fishing and processing in Bristol Bay were calculated by dividing seasonal employment by 6. ** Based on conservative assumption that distribution and retailing adds 50% to value. Data on actual markup not available.				
	Multiplier activity	425					
	Total activity	1,212					
Total impacts & activity		9,804					

The Bristol Bay salmon industry created about \$170 million in income for Washington residents in 2010

Income Impacts of the Bristol Bay Salmon Industry, 2010 (millions of dollars)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts	144	50	48	8	19	18
	Multiplier impacts	268	62	98	7	12	90
	Total impacts	412	112	146	15	31	108
Shipping to other states and secondary processing	Direct impacts	13		11	1		
	Multiplier impacts	30		12	1		
	Total impacts	43		23	2		
Total impacts		455		169	17		
Nationwide distribution and retailing*	Direct activity	23	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. * Based on conservative assumption that distribution and retailing adds 50% to value. Data on actual markup not available.				
	Multiplier activity	20					
	Total activity	42					
Total impacts & activity		497					

The Bristol Bay salmon industry created more than one-half billion dollars in output value in Washington in 2010.

EPA-6363-000005240

Output Value Impacts of the Bristol Bay Salmon Industry, 2010 (millions of dollars)							
Impact Driver		Total US	AK	WA	OR	CA	Other States
Fishing and primary processing in Bristol Bay	Direct impacts	390	127	198	13	19	30
	Multiplier impacts	801	161	288	19	37	297
	Total impacts	1,191	288	486	32	56	327
Shipping to other states and secondary processing in WA & OR	Direct impacts	68		56	4		
	Multiplier impacts	111		37	3		
	Total impacts	179		93	6		
Total impacts		1,370		580	38		
Nationwide distribution and retailing*	Direct activity	46	Note: Total US may exceed sum of estimates shown for individual states; see report for technical explanation. Output value allocated among states based on the residency of fishing and processing workers and business locations.				
	Multiplier activity	61					
	Total activity	106					
Total impacts & activity		1,476	* Based on conservative assumption that distribution and retailing adds 50% to value. Data on actual markup not available.				

For more information about this study
or about the Bristol Bay salmon industry,
please feel free to contact me.

Gunnar Knapp
Professor of Economics
Institute of Social and Economic Research
University of Alaska Anchorage
907-786-7717
Gunnar.Knapp@uaa.alaska.edu